

REMARKS

Early and favorable consideration with respect to this application is respectfully requested.

The Official Action indicates that the documents cited in the International Search Report of the corresponding international application have not been considered because copies of the cited references were not provided and a listing of the documents was not provided. However, it is noted that copies of the references cited in the International Search Report were provided by the International Bureau, together with a copy of the International Search Report as indicated on Form PCT/DO/EO/903 (copy attached). As stated in § 1893.03(g) of the Manual of Patent Examining Procedure (copy attached), when Form PCT/DO/EO/903 indicates that copies of the references are present in the national stage application together with a copy of the International Search Report, the references will be considered by the Examiner without further action by applicant. The Examiner is thus kindly asked to consider the references cited in the International Search Report and to acknowledge such consideration in the next Official Communication. In the event the Examiner has questions concerning this matter, or if the copies of the cited references previously provided cannot be located, the Examiner is kindly asked to contact the undersigned so that such matter can be resolved.

The Official Action also indicates that three of the references cited in the December 3, 2004 Information Disclosure Statement were not considered because English language abstracts were not provided with the Information Disclosure Statement. However, English language abstracts for the three documents are not available. More importantly though, each of the three references is discussed in the

background portion of the application which sets forth, on page 2 of the application, a concise explanation of relevance for each document. As the Examiner is likely aware, the Manual of Patent Examining Procedure specifically states that the concise explanation of relevance can be a part of the specification. It is thus respectfully submitted that the concise explanation of relevance requirement has been satisfied for the three noted references. Nevertheless, to further assist the Examiner, submitted with this Amendment is a further Information Disclosure Statement including partial translations of the three references (and copies of the references themselves) together with form PTO-1449 listing the cited references. It is believed that the fee set forth in 37 C.F.R. § 1.17(p) is not required because the previously submitted Information Disclosure Statement complied with the relevant requirements. Nevertheless, in the event the Examiner believes a fee is required, the Commissioner is hereby authorized to charge the \$180.00 fee to our Deposit Account No. 02-4800. Once again, should the Examiner have questions concerning this matter, the Examiner is kindly urged to contact the undersigned so that this matter can be resolved.

There is an objection to the Abstract. The Abstract has been amended to address the objection. Withdrawal of the objection is requested.

Attached hereto is a substitute specification along with the annotated version of the original specification in accordance with 37 C.F.R. § 1.125(b). The amendments to the specification are limited to replacing "first brake means" with --first brake--; "second brake means" with --second brake--; "collision determination means" with --controller--; "vehicle speed and deceleration detector means" with --vehicle speed and deceleration detector--; "hard braking detector means" with

--hard braking detector--; "hard braking booster means" with --hard braking booster--; "hard braking boosting means" with --hard braking booster--; and "road surface condition detector means" with --road surface condition detector-- throughout the specification. No new matter has been introduced by these amendments to the specification.

Claims 1, 5, and 6 stand rejected based on the combination of McMillan and Paul. Claim 1 has been amended to generally include the subject matter recited in Claim 2.

Thus, Claim 1 now recites that the emergency brake system for a vehicle comprises a first brake that brakes rotation of a wheel, a second brake that brakes the vehicle by increasing frictional resistance with a road surface, an obstacle detector that detects an obstacle existing in an advancing direction of the vehicle, a vehicle speed and deceleration detector that detects the speed and deceleration of the vehicle, a hard braking detector that detects actuation of hard braking by the first brake or actuation requirements for hard braking by a driver, and a controller. The controller determines whether or not the vehicle is going to crash into the obstacle detected by the obstacle detector based on the speed and deceleration detected by the vehicle speed and deceleration detector, after the actuation of hard braking or the actuation requirements have been detected by the hard braking detector. The second brake is actuated if the controller determines that the vehicle is going to crash into the obstacle detected by the obstacle detector

Addressing Claim 2, the Official Action correctly notes that McMillan in combination with Paul fails to teach determining a collision from a hard braking detector. However, the Official Action observes that it would have been obvious to

use a collision predicting device as disclosed in Tanji in combination with McMillan's device so that a second brake is operated when a hard braking by a driver is detected. That rejection is respectfully traversed.

Tanji discloses a seatbelt device that is constructed to reduce the response time for a seatbelt locking device when it is determined that a collision is imminent. See e.g., col. 2, lines 22-25; col. 10, lines 57-60. According to Tanji, a collision predicting device can determine whether there is an imminent collision based on, *inter alia*, a hard braking by the driver. See col. 2, lines 39-44. Using this collision predicting device, Tanji's device is able to lock the seatbelt before the seatbelt is extracted. Col. 10, lines 57-60.

One of ordinary skill would not have been motivated to combine Tanji with McMillan and Paul in the manner suggested in the Official Action because Tanji is concerned with predicting a collision for purposes of locking a seatbelt. In contrast, McMillan is concerned with avoiding a collision by application of a second brake. Tanji is not at all concerned with avoiding a collision, but rather is focused on predicting the occurrence of a collision so that the seatbelt can be appropriately locked. These are two entirely different disclosures implemented for quite different purposes. There is nothing in Tanji to suggest that Tanji's collision predicting device should be used in connection with a braking mechanism to avoid a collision. Consequently, there is no reason why an ordinarily skilled artisan would have been motivated to carry out the modification proposed in the Official Action to arrive at the claimed subject matter.

Further, even if one were somehow motivated to carry out the proposed modification, all that Tanji discloses is locking a seatbelt when a collision prediction

device determines there is an imminent collision. Applying this disclosure to the modified braking system described in McMillan would merely result in a vehicle constructed to predict a collision and to lock a seatbelt upon such detection. This is not what is recited in Claim 1.

In addition, Claim 1 recites that the controller determines whether or not the vehicle is going to crash into the obstacle detected by the obstacle detector based on the speed and deceleration detected by the vehicle speed and deceleration detector, after the actuation of hard braking or the actuation requirements have been detected by the hard braking detector. This is clearly different from the disclosure in Tanji. Tanji describes predicting an imminent collision based on the acceleration of the vehicle, the distance from the car in front, the vehicle speed, hard braking by a driver, etc. However, nowhere does Tanji describe determining whether or not the vehicle is going to crash into the obstacle after the actuation of hard braking (or the actuation requirements have been detected). If one was motivated to apply Tanji's disclosure to the system described in McMillan, there is no teaching that the modification should be implemented so that the second brake described in McMillan is activated after actuation of hard braking (or the actuation requirements have been detected).

Thus, even assuming one of ordinary skill in the art would have been motivated to combine Tanji with McMillan and Paul in the manner suggested in the Official Action, the result would not be that which is recited in Claim 1.

For at least the foregoing reasons, Claim 1 is patentable and allowance of such claim is earnestly solicited.

Claim 3 recites the hard braking booster that automatically boosts hard braking carried out by a driver through the first brake. The claim also recites that if the controller determines that the vehicle is going to crash into the obstacle the hard braking booster is actuated, and if the controller determines that the vehicle is still going to crash into the obstacle after actuation of the hard braking booster, the second brake is actuated.

The Official Action observes that one of ordinary skill in the art would have been motivated to provide McMillan's device with Heibal's brake booster. Even assuming motivation for such a combination exists, neither Heibal nor McMillan (or any other applied reference) teaches actuating a hard braking booster if it is determined that the vehicle is going to crash into the obstacle and actuating the second brake if the controller determines that the vehicle is still going to crash into the obstacle after actuation of the hard braking booster.

For at least this reason, Applicants' respectfully request that the rejection of Claim 3 be withdrawn and Claim 3 allowed.

Claims 4-6 depend from allowable Claim 1 and recite additional features that further distinguish over the art. Allowance of Claims 4-6 is earnestly solicited.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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